

## Claims

- [c1] A system for creating annotation resources, for an image, comprising:
- a. A method to identify feature in the said image by drawing, an annotation in a free form manner in a transparent annotation layer placed on top of the said image, with an annotation tool that is specific to the type of the identified feature;
  - b. A method to generate a domain object for the identified feature from a domain class definition that is specific to the said feature type, where the said domain class definition specifies a list of attributes;
  - c. A method to automatically compute values for some of the said attributes, and a method for users to enter values for rest of the said attributes;
  - d. A method to store the annotation geometry of the said feature in the said domain object;
  - e. A method to store the said domain objects of the said features in database or file;
  - f. A method to create metadata for the annotation resource
- [c2] A method for searching, retrieving and graphically ren-

dering the said annotation resources, comprising:

- a. A program to allow user to enter keywords and/or enter attribute names, attribute values and relationships like equal to, less than, greater than, between and others, for the purposes of searching metadata
- b. A program to use the search parameters entered in a) to find metadata records in database that meet the said search criteria for display as a list, to retrieve the annotation resource selected by user from the list, and display the annotation resource with the associated image in background
- c. A program to display the annotation resource creates a transparent layer and renders annotations in said transparent layers
- d. A program to display all the attributes of an annotated feature contained in the said annotation resource, when the said annotation is highlighted

[c3] A method for tracking features and their attributes, in a sequence of two-dimensional images that are generated by taking an image over a period of time or generated by taking parallel slices of a three-dimensional image, and storing the tracking data in the domain objects of annotation resources, comprising:

- a. A program to overlay multiple transparent annotation layers corresponding to each of the sequence of images

- b. A program in which user chooses the background image on which the said multiple layers are overlaid
- c. A program in which the differences in attribute values are computed and stored in a user specified annotation resource